FLK

"THE PRIMEVAL DIGNITY OF MAN."

AN

ADDRESS

INTRODUCTORY

TO A COURSE OF LECTURES

ON

HUMAN PHYSIOLOGY,

DELIVERED

AT THE TOLAND MEDICAL COLLEGE,

BY

J. CAMPBELL SHORB, M. D.,

PROFESSOR OF PHYSIOLOGY.

JUNE 4th, 1867.

SAN FRANCISCO:

B. F. STERETT, PRINTER, 533 CLAY STREET, BELOW MONTGOMERY.

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CORRESPONDENCE.

Toland Medical College, San Francisco, June 7th, 1867.

J. CAMPBELL SHOR, B M. D.,

Professor of Physiology in the Toland Medical College:

Sir,

We, the Senior Students of Medicine have been appointed by the Class to convey to you a slight testimony of the high admiration in which they hold the Introductory Lecture delivered by you at the beginning of the Fourth Session of the College.

Furthermore, we are instructed to request a copy of your address for publication that its rare philosophical and literary merit may be preserved in print.

Very Respectfully,

J. W. STEELY, L. ROBINSON, A. A. O'NEILL, T. W. SHELTON, J. J. HACKETT.

SAN FRANCISCO, June 8th, 1867.

MESSES. J. W. STEELY, L. ROBINSON, A. A. O'NEILL, Committee.
T. W. SHELTON, J. J. HACKETT,

Gentlemen,

I have just received your very kind note, asking for a copy of my Introductory Address for publication. It gives me great pleasure to comply with your request. The hasty manner in which this address was prepared, renders it full of imperfections, which you will kindly forget in consideration of the truth it was designed to defend.

The Primeval Dignity of Man is a doctrine very dear to all of us, and the humblest effort, directed to its preservation, becomes noble in consequence.

I am, Gentlemen,

Very Respectfully, your ob't servant,

J. CAMPBELL SHORB.

ADDRESS.

You, Gentlemen of the Medical class, and myself, are on the eve of commencing a journey together, one, that in a certain sense, may be truly styled the journey of life, its beginning is the cradle, and its end the grave!

It is right and proper that we who are to travel in company should know each other well, and that the journey may be pleasant and profitable, we should, as friends commence it. We shall each and all of us, from time to time, as the way leads up rocky steeps or is covered by the darkness of night, need each other's kind words of encouragement and helping hands. Foot-worn and weary we may fall on the roadside,—or depressed by the prospect which will be dismal at times, we may feel like turning back, and under these circumstances mutual friendship must be our inspiration; by it we will be endowed with ambition to reach the goal at our journey's end,—with it we can dispel the whispers of despair—we can take new hopes and march resolutely forward.

On me devolves the grateful and pleasing duty of being your guide! For your sakes I wish, from my heart, that you were in abler and more experienced hands. The country through which we are to pass is not as familiar to me as I could wish, and yet I trust, that to those who in this session have commenced their medical studies, as we journey on, I can point out truths and beauties, lovely to know and see and most necessary to remember; and for those who will, at the close of the present course, receive their diplomas, I can at least refresh their memories, already laden with many valuable lessons taught them by my most worthy predecessor in the chair of Physiology.

Until comparatively a recent period, the region which we are about to enter was a dark and unexplored country. From very ancient times, every now and then we find that some daring traveler, urged by his love for the mysterious or his devotion to a science which was still in its infancy; ventured into this unknown realm, and coming back related the marvelous things he saw there. The stories were—except from the fact that they were novel or interesting—entirely devoid of practical ability, little better than pure speculation.

But in more modern times, a host of travelers, with a courage that could not be daunted, and an industry that is beyond all praise, have started in a systematic manner, to examine and explore—like the spies sent by Moses into the land of Canaan—this mysterious country. Their labors have been most successful, they have made vast additions to knowledge, they have conferred incalculable benefits upon the human family, and they have built for themselves monuments more lasting than brass.

Those hard working travelers have not been confined to our country. Throughout the world, where civilization existed, and human life was dear; were found a number inspired with the same feelings,—cheered by the same hopes—having in view the same glorious end, making most valuable contributions to the topography of this once unknown land. They have brought back treasures with them, rich building material, quarried in far off places, massive pillars of fact, and rare gems of knowledge. In truth—its corner stone—they laid the foundation of a gorgeous palace, and the structure goes slowly but nobly up, not finished but grand in architectural design, broad and well founded like the mountain, rising with jeweled walls with columns of wondrous beauty and strength, with friezes and cornices of exquisite imagery, higher and higher, into the very zenith.

And we are called upon to study this beautiful but still unfinished temple,—we are asked to bring our contributions to it. Like our predecessors, we must labor,—ignoble offer-

ings we must never bring. We must follow in their footsteps, guided by the lamps which they have left burning, and which if man be true to the lessons of History, will burn eternally as the stars.

We must not, however, suppose that we have merely to follow in the path which they pursued, for they have garnered all that was valuable there. They tell us, for they know full well the truth, that to the right and left of the way there are dim vast tracts in the distance of which nothing is known, and where careful, patient investigation will reap a most abundant harvest. It is into these hitherto unexplored portions we must strive to enter-there dilligently to labor-hoping, praying to discover what, to the present hour, has escaped the scrutiny of man; in the possession of which we can securely hope for that distinction here which has given immortality to our predecessors, and that reward hereafter which Abou Ben Adhem received, when erased from the number of those who loved their Creator, he asked his Angelic Visitor "to write him down as one who loved his fellow man!"

I bespeak for myself your friendship,—you have mine most sincerely, and so as friends we start to-day upon our journey of human life—the study of human physiology. This is a science which investigates the process and phenomena of the life of the healthy human body, and explains the laws which govern them. Human life is the object of our study, and I have deemed it a fitting introductory, for reasons which shall appear hereafter, to a course of lectures on this subject, to review the justice of the claims to that position which man holds is peculiarly his own in the scale of creation.

That a science may be fully appreciated, it is necessary carfully to examine the matter of which it treats. It may be laid down as a general proposition that the nobility of any science can be most perfectly demonstrated by showing the nobility of the object to which it is directed.

It seems so useless and trite in this age of the world, to

use the much hackneyed expression, that the proper study of mankind is man, or to advance arguments to show the grandeur of that investigation which has as its object the fullest knowledge of human life, that we feel as if we ought to preface any remarks on the subject with an apology. But the truth is, that though theoretically we are all convinced of the importance of the subject, we practically very much ignore it, and there is great reason to doubt if any of us could fully and satisfactorily answer the question if it were put to us, "What is man, and what has he done to be considered this marvel of God's creation, this master piece of his Omnipotence?"

We must not lose sight of the fact that though the present age is one of invention, it is certainly one of innovation too. As far as progress is concerned, it is not necessary that these should be associated, for one does not perforec imply the other. It is by too exclusive a consideration of the advantages of invention, that the dangers of innovation are overlooked and forgotten. The spirit of Invention reaches its highest excellence in addition to the present, not subtraction from the past, and Innovation, when applied to the removal of error,—the age harmonizing with the scheme of reformation,-should in every way be encouraged; but when it invades the sanctuary in which are stored the collected results of the experience of ages, and lays its sacrilegeous hands upon knowledge it has taken centuries to accumulate, the principles which mighty minds arrived at only in dying, it is not a blessing but a curse, which we are called upon to avert.

In our day, this is unfortunately the species of innovation that is so rife. It is a deluge threatening to submerge the land, and we must build our ark as speedily as we may, and trust that the Deity, whose greatest work we propose to vindicate, will guide us safely through the dark and troubled waters. If the past were altogether wrong, and the modern mind, distraught for notoriety, is forever dinning such doctrines in our ears, then the present, which is its legitimate

outgrowth, must partake of its nature and be full of error too. The age is a fearfully conceited one. Conceited! Yes, and full of the blackest ingratitude. It would hide from view the weak and the tottering forms of its ancestors, whose honor, the lapse of time far from diminishing, only renders more brilliant, and whose efforts opened the way to all the wonderful achievements that throng the present century.

The time was—the youngest of us all can still well remember it—when we believed in the history of the origin of man as we found it written in the Bible. To doubt its representations was like questioning the existence of the Being with whom it was so intimately associated. The story ran, and there is an air of truthful simplicity about it all, that in the beginning, Omnipotence created the heavens and the earth and all contained therein, and from the dust of the earth, he formed a creature after his own image and likeness-he breathed into it the breath of life and called it man. Anterior to the moment that the fiat of creation went forth, it was resolved to make man in the likeness of his Creator. Philosophically speaking, we all know that spirit has no configuration or dimension, but from a careful consideration of the Mosaic account we are led to infer that when Deity shall pronounce himself to our mortal eyes, no matter how profoundly spiritualized, it will be in the form and semblance of a glorified man. In this thought there is an infinity of inspiration—a sufficient explanation for all the wonderful achievements of the human intellect—a mighty stimulus to the development of the sublime possibilities of this magnificent creation! What has the Present done or tried to do with this precious heritage of the Past—this belief in the nobility of man-this faith in the Bible history of his origin? It has declared, we shudder as we tell the truth, that the Bible is a fraud and its authors imposters-it has thrown aside and trampled under feet its burning messages of prophecy, its sublime lessons of morality and love, its poetry and its eloquence; it has torn man from his high position, ridiculed the

likeness after which he was created, and declared him the descendant of a monkey born in the fiery atmosphere of tropical suns, away down in the grey dawn of creation.

Let us stop here a moment and look around us. We are sitting, Marius like, amid the wrecks and ruins of the past, and hearing the sad but eloquent pleadings coming up from by-gone ages for justice, succor and defence. Man, our idol, is assassinated, his throne is destroyed, his glory eclipsed and his sovereignty over! There was beauty, if nothing else, in our time-honored belief in the nobility of man's origin, but the theory that the vandalism of the present proposes as a substitute is the very incarnation of ugliness. In the blazing light of modern science many fanciful notions that thronged the past, have been consumed, and we hear without regret that Neptune has been forced to drop his trident with which he controled the passions of the ocean and the pulses of the tides, and that Æolus guarded in his island home by walls of brass and smooth, precipitous rocks, keeps the wild winds in subjection no longer, but we turn with instinctive horror from such elaborate improvement as would disarticulate man from his Creator and make his destiny, one in common with the brutes of the field which perish.

Gentlemen, you have heard, no doubt, of the development theory, one of the beautiful Caliban offsprings of this glorious century. This is a theory as false as it is pernicious. We smile now contemptuously at the poor deluded alchemists, who withdrew themselves from the familiar haunts of men, and throughout the solemn stillness of the mediæval night, searched with blazing eyeballs for that magic stone which from the baser metals could tempt the burnished gold, and yet we are called upon to treat with consideration and respect their unworthy counterparts in this enlightened age—those ill-famed fanatics who would publish their blasphemous lie to the world that they had discovered that wonderful thing which metamorphosed a homely baboon into a glorious man.

Gold will remain gold, and silver will remain silver, until

the Protecting Hand which put this globe in motion is withdrawn, and elements return to the chaos of vapor from which Omnipotence evolved them, for the metals were different from the beginning and so will remain to the end; the monkey will remain a monkey until the fiat of creation which sent the unhappy monster here is accomplished, and man will remain a man, with an immortal soul and transcendent destiny forever and forever, as long as He survives whose birth-day is eternity!

This is not mere idle declamation—the wild dream of a youthful and credulously enthusiastic mind. They are mighty truths, which each and every one of us can read, written in ineffaceable characters upon the everlasting hills, and on the rocks, upon whose broad bosoms they have slept for centuries. Geology puts a torch in our hands, and guided by its friendly ray we can go back to the dark periods of this world's history, "in the dark backward and abysm of time," when not even a living thing, animal or vegetable, was seen upon the earth. In the vaporous desolation and melancholy stillness of that geologic day we can commence our investigations. We breath with difficulty, for noxious gases fill our lungs, and our feet nearly blister as we stand upon the heated crust, almost too thin to hold us up. Reverentially we approach the rocks, which have remained in spite of all sublunary convulsion—pillars of cloud by day—and pillars of fire by night. We lay our hand upon them as Moses did his wand upon the rock of Horeb, and to thirsty souls a stream of knowledge comes forth in plentiful profusion. Gratefully we gaze upon the strange inscriptions witten upon the stony leaves of those divine volumes and feel that the mind of God conceived the alphabet and with it wrote that history, without which, in these frail days, man most surely would go astray.

What do we see upon those stony tablets of the ages? First, the simplest forms of life timidly appearing, forms of vegetable life, of course, they preceded the animal for which they were to furnish food. Ages on ages roll by, the higher

types of plant life have appeared, the coal period and its profuse vegetation are recorded, animals come in upon the stage, commencing with an insect—a microscopic speck, too small for the unassisted human eye to discover—and running through an endless variety of forms terminating in those deadly devouring monsters of the Mesozoic times, those huge beasts beneath whose ponderous tread the very pillars of the earth trembled.

From the appearance of the fern, the alpha of life of any kind upon this planet, to the creation and duration of the Megatherium, a lapse of ages intervened which we can scarcely ever comprehend. In all this time, except in the Great Architect of the universe, can we discover any evidence of mind, any record of genius? We will answer this question presently. The earth, at length fitted by the perfection of its animal and vegetable organisms for a new creation, awaits his advent patiently, and man, its masterwarm from the laboratory of Almighty God-appears upon the scene and takes his part in the great drama of creation. Coeval with his appearance commence the evidences of mind. We look in vain for them before. Armed with the microscope to search the earth, and the telescope to scrutinize the Heavens, summoning to our aid all the chemist's art and the power of the geologist, we fail to discover anything that proves the existence of intelligence before man's arrival upon this planet. Man and Mind they came together here, and to this truth the stony tablets of the earth, inscribed by the finger of Omnipotence, give the most incontrovertible testimony. His coming was the sun which in a later geologic period heralded the dawn of an intellectual day, after darkness had long brooded on the face of the deep and the confines of the earth.

If there were anything in the development theory except wilful blindness and stupidity, we should find in the periods just anterior to the advent of man some dim outline, some prophetic foreshadowings of the light which burst upon us simultaneous with his creation—we should find a dawn gradu-

ally developing into a perfect day. But there is no such thing. It is midnight and all its dark concomitants on one hand,—on the other highest noon with all its glory and effulgence, and between the two there is an infinite chasm which no human ingenuity can bridge over!

When man first appeared upon this planet his mind was as grasping, his perceptions as clear, and his possibilities of progress as unlimited as we find them now. Science there was none, at best, but little for this is based upon long continued and accumulated observation and can come to full maturity only in later times, but the record of the love of the beautiful, the sublime and the terrible, stands out in bold relief on the darkness of the earliest historic times. The achievements of pure mind, as evidenced in philosophy, poetry, painting, sculpture, and architecture, as far back as one can go, have never been surpassed, probably never equalled. Few of the relics, that have come down to us,—mutilated though they be and covered with the dust of centuries, are faultless, or if they have defects, they are such as mortality can never hope to rectify.

And so Man and Mind are coeval and inseparable, and it is safe to conclude that had it not entered into the purpose of Omnipotence to create man, the world, surviving a million of years, would never have been illuminated by a single solitary flash of intelligence. We might rest our cause here, for by facts which admit of no controversy, having shown the nobility of man's origin by the gift of mind which he alone of all sublunary things possesses, it were an easy task to follow him through his brilliant conquests, and prophecy the triumphs which in coming ages, retaining all and improving upon the collected results of the experience of the past, he will undoubtedly accomplish. But we purpose to go a little further, the battle with the enemies of mankind has commenced. Unprovoked by any act on our part, the war is carried on with a malignancy that knows no bounds, and through the smoke of battle we read upon the banners of the cruel foe their appalling purpose, "No quarter." Feeling, as we must, some anxiety still in reference to the final result of the struggle, we must humbly invoke the aid of Him, whose thunderbolt can shiver into sand the adamantine rocks, begging for victory and peace!

One of the arguments paraded with great ceremony and show of learning against the doctrines we are proud to defend, is the development of the intelligence of man through myriads of ages, from the instinct which belongs to the brute creation. Instinct is indeed a very wonderful gift, and we are often struck with illustrations of its power, so closely allied to mind that it were difficult to determine where one ended and the other began. A careful consideration, however, of the habits of men and animals, will reveal the fact that in man, disconnected with that train of thought which characterizes reason, we find an amount of instinct too-equal to the highest degree of the principle witnessed in the brute creation. The immediate search of the new-born infant for the food which is to nourish it, and the mechanical means the little thing adopts for attaining it are illustratious of instinct as clear and unmistakable as any ever witnessed in connection with the brute. And so man has all the instinct of the lower animals, is as smart as any of them, the possession of mind taken out of the question entirely.

But if the argument of the development from instinct holds, it is fair to go back a little further, and assert that this principle in the brute is an improvement of the same faculty found in a form more or less modified in certain plants. It seems a very bold announcement that there is an instinct in plants, yet botanists will tell us of many evidences of its existence there. We well remember reading a very remarkable instance of the kind in the habits of a plant known as the Valisneria Spiralis.

This is an aquatic plant, having its home in tidal streams. It belongs to that class in which the male and female are distinct individuals. The male plant has a long spiral body, by whose elongation or shortening in the ebbing

or the flowing of the tide, it is able to keep its flower adapted to the surface of the water. The female plant has a straight stem and much shorter. It grows near the shore in secluded places, where the water is shallow and still. They are thus differently formed and remotely situated, and it was long a question how union took place and increment perpetuated. But careful watching revealed the fact that when the male flower reached its full maturity, the spiral stem became withered, and the flower separated itself and gallantly sailed over the water in quest of his lady love. For a while, the fickle thing, driven by the tide or blown by the wind, leaves the presence of his mate indifferent to her attractions. But suddenly his flight is checked, we see him obeying a new and mysterious influence, and though wind and tide oppose him, he seek and finds his mate and their nuptials are duly solemnized. What is this stupendous influence which, operating at a distance and in the face of wind and tide, gives the male flower a new and right direction? We may call it what we please. It is instinct if anything, and we are powerfully tempted to look upon it almost as perfect an instance as any we can find in all the mammalia animals. We could multiply examples, but it were weak and useless to do so. One is as good as a thousand, and if its salutary teachings are disregarded, no argument we can advance would reach the hopeless, helpless, blindness and imbecility of our adversaries!

Before we leave the subject of instinct in animals, it would be well to observe how in their manifestations of this principle, we discover that the brutes themselves acknowledge the supremacy of man, and in many ways evince that they have a legendary notion of the fact that in the beginning, as we find it written, dominion was given to him over the fish of the sea and the fowls of the air, and over all the earth. It was a beautiful fancy in the poet, in that charming description of his, of the seenery of the island upon which the poor heart-broken Mariner was cast, and in giving us an idea of its extreme distance and isolation from the

haunts of men, he tells us the beasts and birds were so wild that they were tame and not afraid of man. In the Millenium, probably, such sights will be seen, and from the poets lips the story falls sweetly upon our ears; but the Naturalist who deals in truth and ignores fancy, gives us a very different account. He tells us that nowhere in the world, neither in the eternal snows of the Artic circle, or the burning plains of tropical countries, neither in the sea or on the land, is found a creature which the presence of man will not put to flight. Impelled by the instinct of selfpreservation, the defense of their young, or the pangs of hunger, animals of various kinds attack man repeatedly; but outside of these conditions, they fly at his approach—the tigar to his jungle, and the polar bear to his ice-fields where man may never follow! How, except on the hypothesis of primeval superiority can this phenomenon be explained? In structure man is a pigmy—in physical strength a child and in courage a very craven, compared to many animals, and yet his presence awes them all.

On the dull tablets of the brutish mind, are written characters which time nor change can ever obliterate; characters of endless serfdom to man, and they accept the condition and acknowledge it in a mute but forcible way throughout their lives.

And now another sphere of enquiry opens up to our consideration. In the possession of the faculty of speech, and in speech itself, we find a wonderful support to our principles and a crushing argument against the development theories of our scientific adversaries. Language being the instrument of the expression or communication of thought, can only be found associated with intelligent or intellectual beings, and, of course, man alone of all terrestial animals possesses it. If our theory that man and mind were coeval and instantaneous, be correct, we should find Language, or the evidence of its existence appearing simultaneous with man's creation. And such undoubtedly is the truth. Before the strata of the earth, explored by the searching spirit of

modern enquiry gives token of man's presence here, not the slightest evidence of the use of a language can be discovered; but after his appearance on the scene, records of speech multiply, as we might imagine in a charming and plentiful profusion.

If those fabulous projenitors of the human family, which were undergoing the delightful and scientific process of metamorphosis, had the faintest conception of a language they certainly failed to leave any record behind them of their possession. The dispersion of mankind from the theatre of his divine manufacture, and the gradual expansion of his intelligence necessitated written language as a means of communication and preservation of knowledge where we can find any traces of man, let the period be ever so early, we discover that he left a history of his presence the minutes of his labors written in rude symbols, it may be, yet easily deciphered and full of interest. Were we to ask our adversaries why their friend the gorillas and baboons neglected to do their proportion of development scribbling we would probably be told they were so busy metamorphosing they had no time to attend to anything else.

We do not wish to cumber this lecture, already long drawn out, with elaborate arguments to prove that man's appearance here was instantaneous. The arguments are readily found, and he who runs, may read them. It is certain that nothing like man heralded his advent or typified his semblance. In one moment he is nowhere on the planet, in the next we find him in all his wonderful perfection. Take too geologic periods closely allied in point of time—in one no evidence of man exists; in the other we see him matured in physical configuration, an adult in intelligence.

Associated with the idea of intellect is the necessity of a language by which it can be expressed. We are struck with the wonderful mechanism of the human eye, a perfect aggregate of most perfect parts of solids and liquids, of transparent and opaque tissues, of curtains, lenses, and screens, most exquisitely adjusted. Yet of what value or utility would it

be if Cimmerian darkness enveloped the world and not a ray of light was permitted to enter? And the human ear, would it not be a useless organ in a planet of perpetual silence, where no sound was allowed to disturb the deep sleep of the atmosphere? The necessity of a language grows out of the phenomenon of the existence of mind as irresistibly as light from the contemplation of the eve, or sound from the structure of the ear. Language implies the presence or association of two or more. Had Omnipotence created but one man the necessity of a language would not be so apparent, but even here it is hardly supposable that the lone creature would live on and yet have no communication with his Creator. The first lessons in life just begun were addressed to the ear and not the eye, and this truth involves the sublime idea of our progenitors conversing face to face with the Deity. The first Man, as to whether his name was Adam or not, we are sublimely indifferent, having a mind and the means of expressing it, required the presence of another to whom he could communicate his thoughts,—and the fiat of creation, which made him, went forth again, and lo! upon his enraptured vision burst the form of woman, his companion and his friend! And as we gaze upon her beauty now, which has followed her like a shadow through thousands of years to the present hour, as we study the loveliness of her face and form, and catch the sweet light of her eyes and the tender music of her voice, do we not all feel like asking with the poet-

"What impious tongue, ye blushing saints, would dare
To hint that aught but Heaven ever placed her here!"

Gentlemen, when we come to investigate this subject by the light of pure reason, or dropping reason, when we take the plain, unmistakable teachings of history, whether written by man or inscribed by Omnipotence upon the strata of the Earth, do we find the principles of our ancestral faith weakened or our admiration for development theories increased? Do we not cling with tenderest feeling to one, and reject with supreme disgust the other? In a word, do we not find the Mosaic account, from day to day, adapting itself more perfectly to the march of science, and within our souls grows the dear conviction, that as truth after truth is added to our already existing store of knowledge, and properly balanced intellect, with untiring energies, brings to light new records from the subterranean archives of this planet, the impious vagaries of our small philosophers will disappear "and like the baseless fabric of a vision leave not a rack behind."

The first question proposed in the commencement of this lecture: "What is Man?" at length is answered; imperfectly, I know, but fully enough to meet the requirements of men who desire to be useful and practical, instead of scientific, at the sacrifice of all the traditions of the past.

The second question: "What has Man done?" is one so vast in its proportions that we are almost afraid to attempt its solution. Indeed, we cannot, in a lecture of this kind, do more than skim over the surface; a regularly connected account of man's progress from the time he became a historic character to the present day would consume many volumes. When the dispersion of mankind took place from the necessity of his multiplication, written language became an indispensable element of progress, and to this we are indebted for all our notions respecting the wonderful endowments of man in the most remote ages. It has kept the history of his recorded thoughts and actions in undying remembrance. keeps in view his arts, his poetry, his eloquence and philosophy, his astronomy and mathematics, his love, his filial piety and patriotism, his faith in a Deity and his blessed hope of immortality.

The geologist, delving in the depths of the earth, associated with the vestiges of man's earliest existence, occasionally picks up a queer old coin. Let us look at it a moment. What a mine of thought is opened by its appearance, and fancies "Thick as leaves in Vallambrosa" fill our field of vision. This old coin has rare historic value, and if we will only listen, it will talk to us. It will tell us, in the day it was

manufactured, there were well founded laws respecting the rights of property, there were modes of exchange and standards of value, and governments by which they were established, regulated and kept in force; it tells us in those ancient days, miners prospected for metals, and occasionally struck the veins; that there were assaying establishments and mints from which it, with a thousand comrades, came forth the public usage. It paints the perfection of drawing and sculpture which preceded its appearance; it tells of the maturity of a language and its expression in writing, and the clear perceptions of the principles of arithmetic. And in our last gaze upon its ancient, venerable face, we behold its fear of oblivion and its desire to be remembered in coming ages.

In those misty days which, so far as we are concerned, are certainly pre-historic times, man did what he has repeated, with gradually improving intelligence, down to this century. He founded empires which grew to be mighty, reached the zenith of their greatness, passed into a state of decrepitude and finally disappeared. On the grave of perished dynasties he has built new sovereignties, grander, nobler than any that flourished in the Past. Take the magnificence of Greece, as exemplified in the valor of her sons, the intellectuality of her statesmen and the wisdom of her philosophers, in the days when Leonidas met the invader at Thermopylæ; or, later by a century, when Demosthenes by his impassioned eloquence kept at bay the Macedonian king. Consider the grandeur of Rome, "that most high and palmy State of Rome, a little ere the mightiest Julius fell," when Virgil sang so sweetly in the garden of Mæcenas; or Cicero, incandescent with patriotic fire, hurled from the forum, those burning javelins of formal, terrible impeachment against Cataline the conspirator; consider them both-Greece and Rome in the noon-tide of their glory; they were flowers that bloomed in a later day, the seeds were planted originally in the gardens of Assyria, from which the world in all ages has been supplied. Man was mighty in the beginning—a very giant,

and the first recorded Empire that he founded in forms more or less modified, has been repeated in every system of civilized government, down to the present day.

Gentlemen, have you ever stopped to reflect upon the the thoughts that must have filled the mind of him who first beheld the ocean? A wide expanse of water, stretching into infinite distance, sublime when in repose, and terrible when its billows, lifted by the titan shoulders of the tempest, "mount to the welkin's cheek," did it not say to him, "Thus far and no farther;" and did he not feel, if he disobeyed the voice of warning and tried an element not his own, that

"Like a drop of rain, He'd sink into the depths with bubbling groan, Without a grave—unknelled, uncoffined, and unknown."

But man was not satisfied; he chafed at boundaries to his progress, he rebelled against the tyranny of the ocean, and that rebellion weak at first, triumphed at last, and he goes down to the sea and launches his strong-knit bark,—he spreads his canvass to the gale, and makes the trackless deep a highway through the world;—and when in his wanderings on the sea,—night and tempest shut out the friendly light of sun and stars, he seeks his needle, that wonderous offspring of his intellect, and true as the lightning, whose spirit has been breathed upon it, it silently leads him to his haven at last!

In the long ago, when the thunderstorm blackened the Heavens, and the conflagration of the lightning light up the entire sky, man trembled and fled, believing the Deity was angry and contemplated disaster to the world. In a later day, Franklin sends up his little paper kite and the fiery, untamed spirit of the clouds becomes the docile creature of his will, and where he bids it go, it meekly obeys, and human life and property no longer dread its vengeance.

More than this: Man has taken a little wire and stretched it from land to land, and under the ocean from continent to continent, and over this slender thread, he sends the lightning, his messenger, which flashes his wishes and his thought "from Indus to the Poles!" A word more ere we finish. We have all read in the Arabian Nights the story of the poor fisher-

man who, in casting his nets, drew from the sea the copper vessel with the seal of Solomon upon it. In opening the vessel a thick smoke issued from it and filled all the shore. Gradually the vaporous mass solidified and the form of a huge and angry genius appeared to the awe-struck fisherman. The ungrateful demon, ignoring the means by which his deliverance was effected, was bent on destroying his saviour. Affecting to disbelieve that so enormous a giant was ever contained within the narraw compass of the copper vessel, the fisherman induced the genius to return, and once having him within his dungeon, he put the seal of Solomon upon it, and the Devil was at his mercy!

Man, by a process of incantation his intellect devised, has raised from the surface of the water a spirit as vast, powerful and destructive as the one which towered above the hapless fisherman. He has bound him down with bands of iron and ribs of steel, he has laid an iron pathway for him,—earth and rocks would crumble under his mighty stride,—and over the valleys and through the mountain gorge the angry monster goes, howling with breath of flame and sinews that never tire, transporting his master and his property to and from the four winds of Heaven!

Steam in the hands of man has revolutionized the industry of the world.

We can dwell no longer on his other triumphs. I have taken but a drop from the ocean of his wealth, study will recall what I have been obliged to omit. Be assured of this, however, that the more we investigate man's past history, his present achievements and his almost infinite possibilities, the more fully will be revealed the truth of the poet in that sublime apostrophe of his upon this marvel of Omnipotence: "What a piece of work is man! how noble in reason, how infinite in faculties, in form and moving how express and admirable; in action how like an angel, in apprehension how like a god; the beauty of the world, the paragon of Creation!"



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